

CLAIMS

What is claimed is:

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- 5 1. An automated inspection system for automatically inspecting a surface treatment of a game ball, said automated inspection system comprising:
- an imaging system arranged to detect the presence of a substance applied to the surface of a game ball and to generate a detection signal representative of said substance; and
- 10 an analyzer coupled to said imaging system to receive said detection signal from said imaging system and analyze said detection signal to determine conformance of the surface treatment to production standards.
- 15 2. An automated inspection system as in claim 1, wherein:
- said analyzer generates an analysis signal indicative of conformance of the surface treatment to predetermined standards;
- 20 said automated inspection system further comprises an inspection responsive device coupled to said analyzer to receive said analysis signal; and
- said inspection responsive device utilizes said analysis signal to perform an act on the inspected game ball associated with said analysis signal.
- 25 3. An automated inspection system as in claim 2, wherein:
- said analysis signal comprises a reject signal generated by said analyzer upon a determination of
- 30 nonconformance of said surface treatment with production standards.

4. An automated inspection system as in claim 3,
wherein:

said automated inspection system is provided
in a game ball processing station downstream of a processing
5 apparatus in said processing station; and

said inspection responsive device comprises a
reject device positioned downstream of said detector to
remove defective balls from said processing station.

10 5. An automated inspection system as in claim 1,
wherein said detector further comprising an environmental
modification device configured such that the game ball
surface can be properly detected by said imaging system.

15 6. An automated inspection system as in claim 5,
wherein:

a coating containing an agent that is
illuminated under non-ambient lighting conditions is applied
to the game ball surface; and

20 said environmental modification device
comprises lighting having a wavelength selected to illuminate
the agent in the coating on the game ball surface.

7. An automated inspection system as in claim 5,
wherein:

25 ink is applied to the golf ball surface in the
form of an indicium; and

said environmental modification device
comprises lighting arranged to cause even, diffuse
illumination of the indicium for detection by said imaging
system.

30 8. An automated inspection system as in claim 1,
wherein:

said imaging system comprises a detector; and
said detection signal comprises a still image
of the golf ball being detected.

5 9. An automated inspection system as in claim 8,
wherein said detector is a shuttered camera.

10 10. An automated inspection system as in claim 8,
wherein said analyzer comprises a machine vision engine
capable of analyzing images of the golf ball being inspected.

15 11. An automated inspection system as in claim 10,
wherein said analyzer further includes a monitor for
displaying information generated by said machine vision
engine on the golf ball being inspected.

20 12. An automated inspection system for
automatically inspecting a surface treatment of a golf ball,
said automated inspection system comprising:
 an imaging system arranged to generate a still
image of a golf ball; and
 an analyzer coupled to said imaging system to
receive and analyze said still image to determine conformance
of the surface treatment to production standards.

25 13. An automated inspection system as in claim 12,
wherein said golf ball is maintained in a still position
during generation of said still image.

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